

MISCELLANEOUS.

On Scientific Nomenclature. By Professor ASA GRAY.

The propositions for the improvement of zoological nomenclature made to the British Association at its twelfth meeting, in 1842, by an influential committee, are well known. They were essentially limited to zoology mainly for the reason, which is undoubtedly true, that botanical nomenclature stands in much less need of distinct enactment than zoological. At the recent Newcastle meeting the committee on this subject was reconstituted, and instructed "to report on the changes which they may consider it desirable to make, if any, in the rules of nomenclature drawn up at the instance of the Association by Mr. Strickland and others, with power to reprint these rules, and to correspond with foreign naturalists and others on the best means of insuring their general adoption." "Accordingly the rules, as originally circulated, are now reprinted, and zoologists are requested to examine them carefully, and to communicate any suggestions for alteration or improvement, on or before the 1st of June, 1864."

As most of the propositions are from their nature equally applicable to botany, and as the new committee comprises the names of four botanists, extremely well selected, it is obvious that the improvement of nomenclature of genera and species in natural history in general is contemplated. We feel free, therefore, to make any suggestions that may occur to us from the botanical point of view.

First, we would recommend that "the admirable code proposed in the 'Philosophica Botanica' of Linnæus"—to which "if zoologists had paid more attention . . . the present attempt at reform would perhaps have been unnecessary"—be reprinted, with indications of the rules which in the lapse of time have become inoperative, or were from the first over-nice (*ex. gr.* 222, 224, 225, 227, 228, 229, 230, &c., most of which are recommendations rather than laws). The British Association's Committee has properly divided its code into two parts, 1. Rules for rectifying the present nomenclature; 2. Recommendations for improving the nomenclature in future. The laws all resolve themselves into, or are consequences of, the fundamental law of priority, "the only effectual and just one."

Proposing here to comment only upon the few propositions which seem to us open to doubt, we venture to suggest that "§ 2. *The binomial nomenclature having originated with Linnæus, the law of priority in respect of that nomenclature is not to extend to the writings of antecedent authors,*" is perhaps somewhat too broadly stated. The essential thing done by Linnæus in the establishment of the binomial nomenclature was, that he added the specific name to the generic. He also reformed genera and generic names; but he did not pretend to be the inventor or establisher of either, at least in botany. This merit he assigns to Tournefort, in words which we have already cited in Silliman's Journal (vol. xxv. p. 134); and he respected accordingly the genera of Tournefort, Plumier, &c., taking only the liberties which fairly pertained to him as a systematic reformer. While, therefore, it is quite out of question to supersede

established Linnæan names by Tournefortian, we think it only right that Tournefortian genera, adopted as such by Linnæus, should continue to be cited as of Tournefort. So, as did Linnæus, we prefer to write *Jasminum*, Tourn., *Circæa*, Tourn., *Rosmarinus*, Tourn., *Tamarindus*, Tourn., &c. Indeed, it is not fair to Linnæus to father upon him generic names, such as the last two and many more, which Linnæus specially objects to, as not made according to rule. Specific names, of course, cannot antedate Linnæus, even if the descriptive phrase of the elders were of a single and fit word.

“§ 10. *A name should be changed which has before been proposed for some other genus in zoology or botany, or for some other species in the same genus, when still retained for such genus or species.*” The first part of this rule is intended, we presume, to be the equivalent of No. 230 of the ‘*Philosophia Botanica* :’ “*Nomina generica plantarum, cum zoologorum et lithologorum nomenclaturis communia, si a botanicis postea assumpta, ad ipsos remittenda sunt.*” We submit that this rule, however proper in its day, is now inapplicable. Endlicher, who in a few cases endeavoured to apply it, will probably be the last general writer to change generic names in botany because they are established in zoology. It is quite enough if botanists and, perhaps more than can practically be effected, if zoologists will see that the same generic name is used but once in each respective kingdom of nature.

“§ 12. *A name which has never been clearly defined in some published work should be changed for the earliest name by which the object shall have been so defined.*” Very well. And the good of science demands that unpublished descriptions, and manuscript names in collections, however public, should assert no claim as against properly published names. But suppose the author of the latter well knew of the earlier manuscript or unpublished name, and had met with it in public collections, such name being unobjectionable, may he wilfully disregard it? And as to names without characters, may not the affixing of a name to a sufficient specimen in distributed collections (a common way in botany) more surely identify the genus or species than might a brief published description? Now the remarks of the Committee, prefixed to § 12, while they state the legal rule of priority, do not state, or in any way intimate, that a wilful disregard of unpublished names, especially of those in public or distributed collections, is injurious, dishonourable, and morally wrong. In the brotherhood of botanists, it should be added, custom and courtesy and scientific convenience in this respect have the practical force of law, the wilful violation of which would not long be tolerated; and the distribution of named specimens, where and as far as they go, is held to be tantamount to publication.

As to the recommendations for the future improvement of nomenclature, in passing under review the “*Classes of objectionable names,*” we wonder that geographical specific names should have been objected to: we find them very convenient in botany, and, next to characteristic names, about as good as any. Comparative specific names in *oides* and *inea*, &c., are much used by botanists, and are often particularly

characteristic. Specific names derived from persons, used with discretion, and as far as possible restricted to those who have had to do with the species, as discoverer, describer, &c., are surely unobjectionable. Generic names derived from persons are, we agree, best restricted to botany, where, when appropriately applied, they are in good taste, if not too cacophonous. As to closely resembling names, in large genera it may sometimes be best to "call a species *virens* or *virescens*" when there is already a *viridis*. Anagrams, like puns, if not cautiously handled and particularly well made, are intolerable. But what can be prettier, among unmeaning names, than R. Brown's *Tellima*? Botanists will hardly agree that a good generic name which has been effectually superseded by the law of priority should never afterwards be bestowed upon some other genus of some other order. "It has sometimes been the practice, in subdividing an old genus, to give to the lesser genera so formed the names of their respective typical species." The Committee objects to this usage because the promotion calls for new specific names. To us it seems a natural and proper course when the name of the species in question is substantive and otherwise fitting,—most proper when (to take a not uncommon case) one used generically in the first place by ante-Linnæan naturalists or herbalists.

But the objection of the Committee is probably connected with a peculiar view which they have adopted as to the way of citing species which have been transferred to some other than the original genus. Here many zoologists, and a few botanists, have been giving themselves much trouble and perplexity, as it seems to us, to little purpose. Take for illustration our Blue Cohosh, originally *Leontice thalictroides* of Linnæus, but afterwards, in Michaux's Flora, taken as the type of a new genus, and therefore appearing as *Caulophyllum thalictroides*. Now if we adopt the view of Linnæus, to which he would probably have adhered had he lived till now, we write the name and the authority thus:—

Leontice thalictroides, Linn.

(Syn. *Caulophyllum thalictroides*, Michx.)

The abbreviated names of the authors appended stand in place of the reference, e. gr. Linn. Sp. Pl. 1, p. 448, and Michx. Fl. Bor.-Am. 1, p. 205, tab. 21. If the other view be adopted, it stands, in fact,

Caulophyllum thalictroides, Michx.

(Syn. *Leontice thalictroides*, Linn.)

But, fearful lest the original describer should be robbed of his due credit, it has been proposed to write,

Caulophyllum thalictroides, Linn.

This is not only an anachronism of half a century, but an imposition upon Linnæus of a view which he had not and perhaps would not have adopted. To avoid such fatal objections, it has been proposed to write *Caulophyllum* (Michx.) *thalictroides*, Linn., which is not only "too lengthy and inconvenient to be used with ease and rapidity," but too cumbrous and uncouth to be used at all. And finally, the Committee propose to write,

Caulophyllum thalictroides (Linn.) (sp.),

which is scarcely shorter, or even to leave out the (sp.). The reader is thus to note that Linnæus originally gave the specific name *thalictroides*, but not the generic. Who did, must be otherwise ascertained. A pretty long experience convinces us that much confusion is risked or trouble expended, and nothing worth while secured by these endeavours to put forward the original rather than the actual application of a specific name. Ante-Linnæan nomenclature broke down in the attempt to combine specific appellation with description. Here the attempt is to connect it with the history of its origin, which, after all, can be rightly told only in the synonymy. The natural remedy for the supposed evil which this mode of citation was to cure is to consider (as is simply the fact) that the appended authority does not indicate the origin, but only the application at the time being, of the particular name; and so no one is thus robbed of his due. The instructed naturalist very well knows the bibliography of species, or where to look for it; the tyro can learn.

“§ C. *Specific names should always be written with a small initial letter, even when derived from persons or places*”—on the ground that proper names written with a capital letter are liable to be mistaken for generic. (But no naturalist would be apt to write the name of a species without that of the genus, or its initial, preceding.) Also, “that all species are *equal*, and should therefore be written all *alike*.” The question is one of convenience, taste, and usage. As to the first, we do not think a strong case is made out. If mere uniformity be the leading consideration, it might be well to follow the example of the American author who corrected *Ranunculus Flammula*, Linn., and *R. Cymbalaria*, Pursh, into *R. flammulus* and *R. cymbalaria*! As to taste and usage, we suppose there would be a vast preponderance against the innovation, so far as respects personal names and those substantive names which Linnæus delighted to gather from the old herbalists, &c., and turn to specific use, e. g., *Ranunculus Flammula*, *R. Lingua*, *R. Thora*, *R. Ficaria*, and the like. Adjective names of places and countries Linnæus printed with a small initial, e. g., *R. lapponicus*, &c. DeCandolle writes such names with a capital letter; and this best accords with English analogy, but has not been universally adopted, and probably will not be.

“§ F. *It is recommended that, in subdividing an old genus in future, the names given to the subdivisions should agree in gender with that of the original group*.” The practical objection to this is, that old names should be revived for these genera or subgenera, if there be any applicable ones, which is likely to be the case in botany.—*Silliman's American Journal*, March 1864, p. 278.

On the Roman Imperial and Crested Eagles. By JOHN HOGG, Esq., M.A., F.R.S., F.L.S., &c.*

I purpose in the present paper to make a few brief remarks on the *Crested* or *Crowned* Eagles, and the usual *Roman* Eagle.

This last bird, which is generally termed the *Imperial* Eagle, is

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